

Claims

1. A method of communicating, the method comprising:
effecting communication between first and second radio transceivers via a
5 telecommunications network over a first channel;
determining the distance between the first and second radio transceivers;
determining whether the distance between the two transceivers meets a
predetermined threshold; and
in response to a determination that the threshold is met, effecting direct
10 mode communication between the first and second radio transceivers over a second
channel.
2. A method as claimed in claim 1, in which the second channel has a greater
bandwidth than the first channel.
- 15 3. A method as claimed in claim 1 or claim 2, further comprising, prior to the
effecting direct mode communication step, estimating the quality of the second
channel.
- 20 4. A method according to any preceding claim, in which the determining steps
are carried out at the first radio transceiver.
5. A method according to any preceding claim, in which the distance
determination step includes determining the locations of the first and second radio
25 transceivers.
6. A method as claimed in claim 5, in which the location determination involves
a satellite-based position system.
- 30 7. A method as claimed in any of claims 1 to 5, in which the location
determination involves triangulating from plural fixed radio transceivers, preferably
forming part of the telecommunications network.

8. A method as claimed in any preceding claim, in which the first and second channels are of different channel types.
9. A method as claimed in any preceding claim, in which the direct mode communication step is effected only if a bandwidth or other service demand exceeds the capability of the first channel.
10. A method as claimed in any preceding claim, in which the threshold is dependent on the sum of the radio coverage of the first and second radio transceivers.
11. A radio transceiver, comprising:
a communicator for communicating with a remote radio transceiver via a telecommunications network over a first channel;
a determiner for determining the distance between the transceiver and the remote transceiver, and for determining whether the distance meets a predetermined threshold; and
a channel charger, responsible to a determination that the threshold is met, for effecting direct mode communication between the transceiver and the remote transceiver over a second channel.
12. A radio transceiver as claimed in claim 11, in which the second channel has a greater bandwidth than the first channel.
13. A radio transceiver as claimed in claim 11 or claim 12, further comprising an estimator arranged to estimate the quality of the second channel.
14. A radio transceiver as claimed in any of claims 11 to 13, including a satellite positioning receiver, arranged to calculate the location of the transceiver.
15. A radio transceiver as claimed in any of claims 11 to 14, in which the first and second channels are of different types.

16. A system for effecting communication between first and second radio transceivers, comprising:

a communicator for effecting communication between the first and second radio transceivers over a first channel;

5 a determiner for determining the distance between the transceivers, and for determining if the distance meets a predetermined threshold; and

a channel charger responsive to a determination that the threshold is met, for effecting direct mode communication between the transceivers over a second channel.